PATENT

Attorney Docket No. SIC-03-024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:
KOUJI OOHARA
Application No.: 10/604,813
Filed: August 19, 2003
For: POWER STABILIZING APPARATUS FOR A BICYCLE ELECTRICAL COMPONENT

Examiner: Dru M. Parries
Art Unit: 3683

REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

This is a reply brief for the above-captioned matter.

The Examiner's Answer alleges at the last sentence of the last paragraph of page 7 that, once it is determined that providing composite signals can save wires, the added cost/labor burden of providing additional CPU's can be ignored. No authority has been cited for that proposition in an obviousness analysis, and clearly that is not the law. No rational person would want to do something when the negatives outweigh the positives.

The sole motivation stated for providing composite signals to all of the components in Spencer, et al's system is to save wires. However, the specific system proposed by the examiner actually makes things worse.

Assume Spencer, et al's display (31) is modified according to the teachings of Tarpenning, et al as suggested by the examiner to include a backlight. Then display (31) will comprise an LCD display portion (that presents the information to the rider), and a backlight portion (that illuminates

the LCD display portion). In the prior art, once a power line is routed to a particular location, that power line can be used to feed power to all of the components at that location. Accordingly, a power signal line would be provided to power the LCD display portion and the backlight portion. A separate control signal line would be provided to control the operation of the LCD display portion. This system constructed according to conventional signal distribution methods uses a total of two wires – one power wire and one control wire.

The system proposed at the first paragraph of page 8 of the Examiner's Answer adds a CPU and a backlight to Spencer, et al's display (31). Thus, Spencer, et al's display (31), as modified by Tarpenning, et al and Admitted Prior art, comprises a CPU, an LCD display portion (the first electrical bicycle component recited in claim 28) and a backlight portion (the second electrical bicycle component recited in claim 28). As stated at lines 6-9 of the first paragraph of Page 8 of the Examiner's Answer, the CPU at display (31) would receive a composite power/control signal from Spencer, et al's controller (21) and decode the composite signal to provide separate power and control signals. The power signal would be sent on one wire to power the LCD display portion, and the control signal would be sent on another wire to control the LCD display portion to display the information to the rider. That's two wires.

Now, because claim 28 requires the second electrical bicycle component (backlight) to receive a *composite* signal, the power signal from the CPU cannot simply be used to power the backlight. To satisfy claim 28, a *third* wire must be provided to communicate the *composite* signal to the backlight so that it can be processed by Schwaller's voltage regulator. So instead of the *two* wires that would be used in the prior art, *three* wires containing three different signals (a power signal, a control signal, and a composite signal) must be used in the system proposed by the examiner. The proposed system does not *reduce* the number of wires required to feed the LCD display portion and the backlight portion compared to the prior art. If anything, the proposed system *increases* the number of required wires, not to mention the increased complexity of the system.

As explained at the second full paragraph of page 5 of Appellant's brief, there simply is no reason to provide a composite signal to a bicycle electrical component that is not controlled by the control signal component of the composite signal as required by claim 28. Furthermore, components

(such as backlights) that do not use control signals need only one wire to operate: a power wire. Thus, there is no reason to power a backlight with a composite signal to save wires because there are no wires to be saved in such an application. The benefit alleged by the Examiner simply would not occur. Thus, the prior art neither discloses nor suggests the subject matter recited in claim 28.

With respect to claim 39, the Examiner apparently alleges that the individual voltages LCD0-LCD7 used to power the LCD segments in Spencer's display shown in Figs. 11 and 14 comprise "speed indicating signals." While claims terms are to be given a reasonably broad interpretation, that interpretation still must be consistent with Appellant's specification. Speed indicating signals that are consistent with Appellant's specification comprise signals from which speed can be calculated (e.g., pulses as recited in claims 29 and 30). Voltages used to illuminate LED segments cannot reasonably be interpreted to be speed indicating signals and be consistent with Appellant's disclosed speed indicating signals.

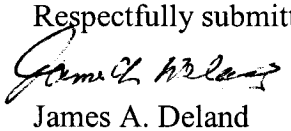
Even more importantly, however, is the fact pointed out in the third full paragraph at page 4 of Appellant's brief that claim 28 requires a composite signal that can be *decoded to extract* the information contained in the control signal component. Decoding involves translation from code into an original language or form. There is no way to decode Spencer, et al's signals LCD0-LCD7 into the original language or form from which they came.

With respect to the allegation that the Appellant is improperly attacking references individually, when an examiner alleges that a reference shows a particular feature, it is entirely proper to point out how that reference does not show the alleged feature.

With respect to claim 40, it is improper to paraphrase a claim and omit important claim limitations. Claim 40 depends from claims 39 and 28. When all of the limitations are read in context, claim 40 requires the *output* composite signal to have a control signal component that is a speed indicating signal derived by a waveform shaping circuit from the output of an alternating current generator. Furthermore, as noted above, claim 28 requires a composite signal that can be *decoded to extract* the information contained in the control signal component.

Tomita's waveform shaping circuit (13) is *not* disposed within microcomputer (14) as alleged by the examiner, and Tomita's microcomputer (14) does *not* output the shaped signals from waveform shaping circuit (13) as control signals that can be decoded to reconstruct the signals at a different location. Similarly, Spencer, et al processes speed indicating signals within controller (21), and that's where the speed indicating signals stop. There is no disclosure or suggestion anywhere to generate and output a composite power/control signal that has a control signal component that is a speed indicating signal derived by a waveform shaping circuit from the output of an alternating current generator as recited in claim 40, such that the composite signal can be *decoded to extract* the original language or form of the speed indicating signals as required by claim 28.

Respectfully submitted,



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